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§ 8. ON THE ELECTRICITY OF THE VOLTAIC PILE; ITS SOURCE, QUANTITY, INTENSITY, AND GENERAL CHARACTERS. ^{1.} ON SIMPLE VOLTAIC CIRCLES. ^{ti.} ON THE INTENSITY NECESSARY FOR ELECTROLYSATION. ^f ON ASSOCIATED VOLTAIC CIRCLES, OR THE VOLTAIC BATTERY. ^{iv.} ON THE RESISTANCE OF AN ELECTROLYTE TO ELECTROLYTIC ACTION. ^f V. GENERAL REMARKS ON THE ACTIVE VOLTAIC BATTERY

^{i.} *On simple Voltaic Circles*

610. THE great question of the source of electricity in the voltaic pile has engaged the attention of so many eminent philosophers, that a man of liberal mind and able to appreciate their powers would probably conclude, although he might not have studied the question, that the truth was somewhere revealed. But if in pursuance of this impression he were induced to enter upon the work of collating results and conclusions, he would find such contradictory evidence, such equilibrium of opinion, such variation and combination of theory, as would leave him in complete doubt respecting what he should accept as the true interpretation of nature: he would be forced to take upon himself the labour of repeating and examining the facts, and then use his own judgment on them in preference to that of others.

611. This state of the subject must, to those who have made up their minds on the matter, be my apology for entering upon its investigation. The views I have taken of the definite action of electricity in decomposing bodies (518), and the identity of the power so used with the power to be overcome (590), founded not on a mere opinion or general notion, but on facts which, being altogether new, were to my mind precise and conclusive, gave me, as I conceived, the power of examining the question with advantages not before possessed by any, and which might compensate, on my part, for the superior clearness and extent of intellect on theirs. Such are the considerations which have

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